USDA Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

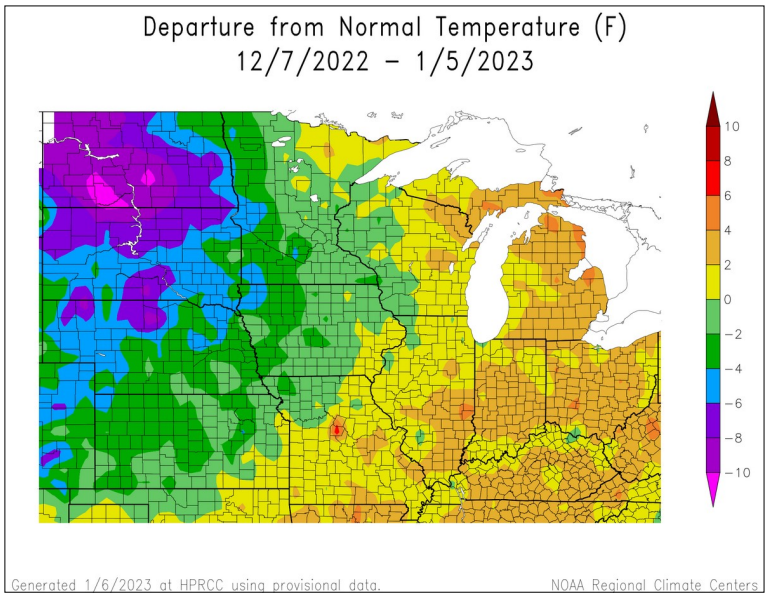
January 6, 2023

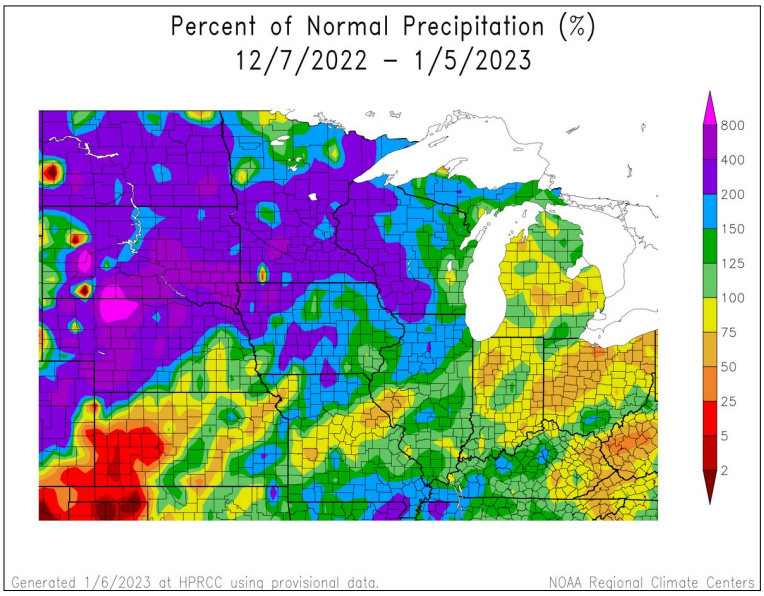
Midwest Ag-Focus Climate Outlook

Main Points

- Drought is still pervasive across the region and appears likely to continue into spring in western areas; eastern areas have seen more recovery.
- Several storms have brought major snowfall across the north while other areas have received heavier rain.
- La Niña still influences the outlooks into late winter but is weakening.

Current Conditions



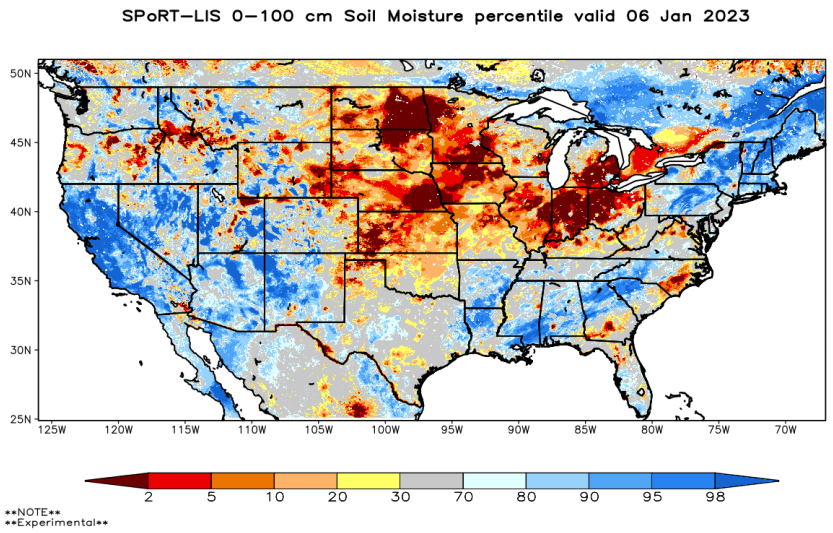


A large storm system brought heavy snows across the Dakotas and Minnesota as well as extremely cold air just before Christmas. The storm caused substantial issues for travel and livestock. Despite the days of extreme cold, only the Dakotas were well below average for temperatures over the last 30 days. Most of the eastern areas were 2 to 4°F above average. The coldest areas in the Dakotas were 6 to 10°F below average. Most of the region has received above-average precipitation over the last 30 days, including 2 to 8 times the average precipitation in the northern Plains. Drier-than-average conditions were more common in the east and much of Kansas. Across most of the northern areas, precipitation fell as snow while the south and east received rain.

Images from High Plains Regional Climate Center (HPRCC), Online Data Services: ACIS Climate Maps. Generated: 12/6/2022.

Impacts

Drought and its various impacts have been the most pressing issues in the Midwest over the last month.

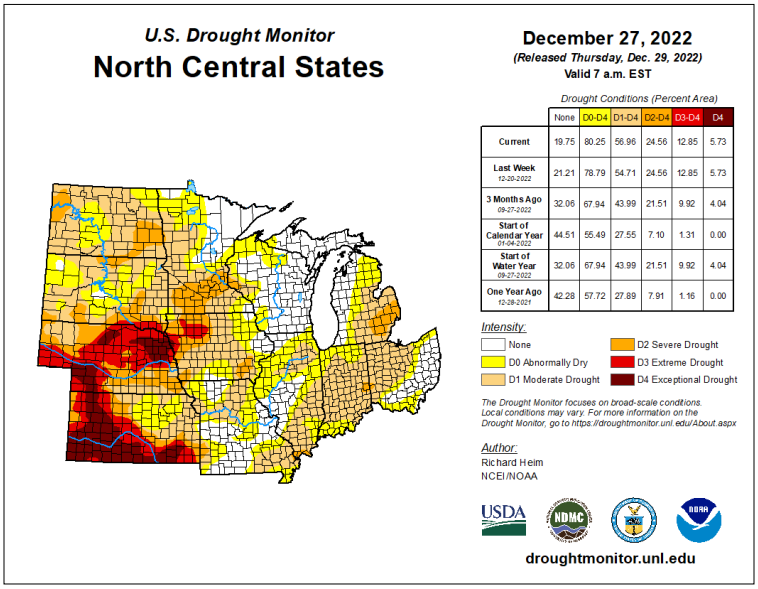


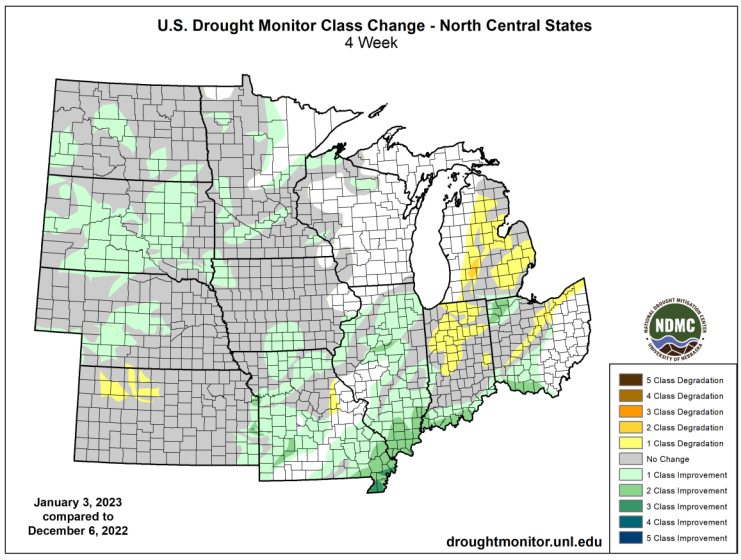
Despite above-average precipitation, drought recovery in some areas has been limited. Areas along the Mississippi River have received more rain and shown signs of drought recovery. The above-average precipitation in the Plains was not sufficient to facilitate drought recovery given the very large deficits going back 1 to 2 years. Soils in southern areas and in some eastern areas have remained unfrozen, allowing for deeper soil moisture recharge. In the northern states, soils are generally frozen and keep moisture from reaching deeper into the soil.

Snow will not help much with soil moisture but will likely run off, adding water to surface water bodies and the river systems, which have been very low the last several months.

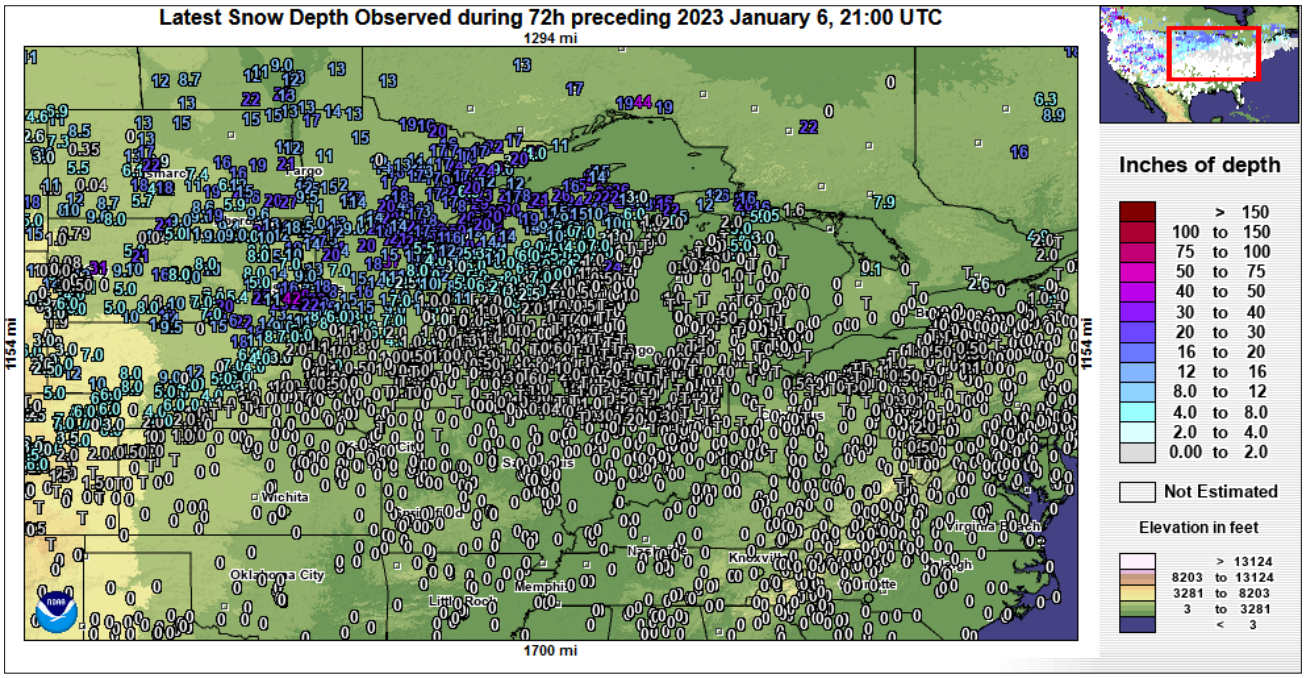
See the next page for figures that display current snow cover and frost depth.

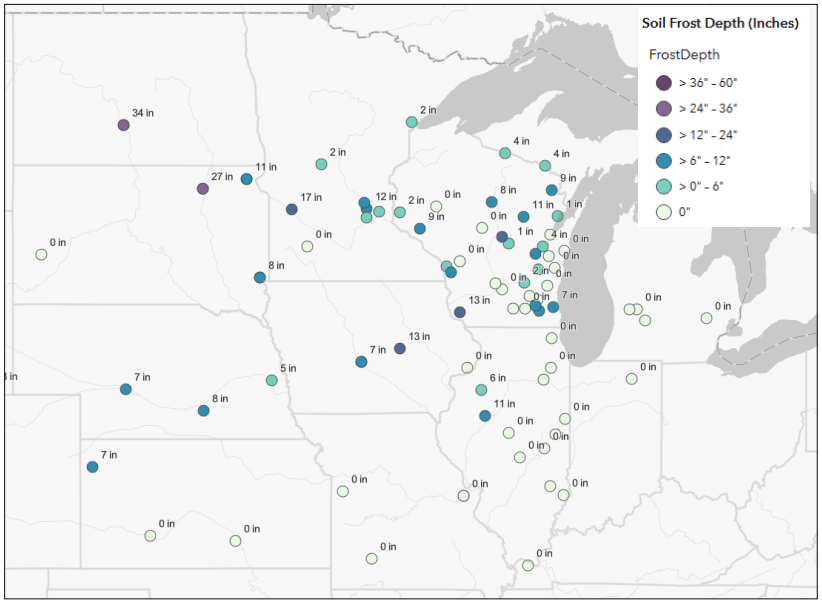
Check out how your area's freeze dates are changing: https://www.climatehubs.usda.gov/hubs/midwest/tools/exploring-historical-freeze-dates-midwest-and-northeast-regions





Maps Generated by the National Drought Mitigation Center and the Short-term Prediction Research and Transition Center.





Maps Generated by the National Operational Hydrologic Remote Sensing Center and the National Weather Service.

Outlook

Nearer-term outlooks (6- to 10-day and 8- to 14-day) indicate more likely mild conditions with above-average temperatures somewhat more likely throughout the central US. There are slightly increased chances for precipitation. Some of these systems are more active for the drier eastern areas; still, they are unlikely to substantially mitigate drought.

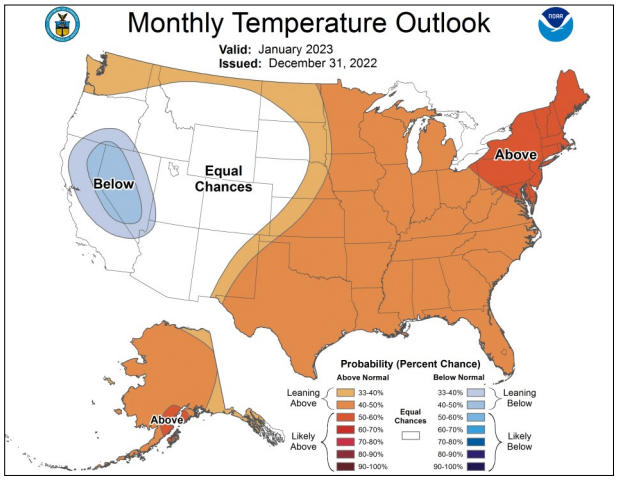
The 30-day outlooks from NOAA's Climate Prediction Center for January continue the slightly increased chance for warmer-than-average conditions. Conversely, there is limited chance for much extreme cold in the near-term. The eastern Corn Belt has a slightly better chance for above-average precipitation. The 90-day outlooks continue to have a La Niña look to them, though La Niña is likely to weaken through the winter. Temperatures lean toward colder

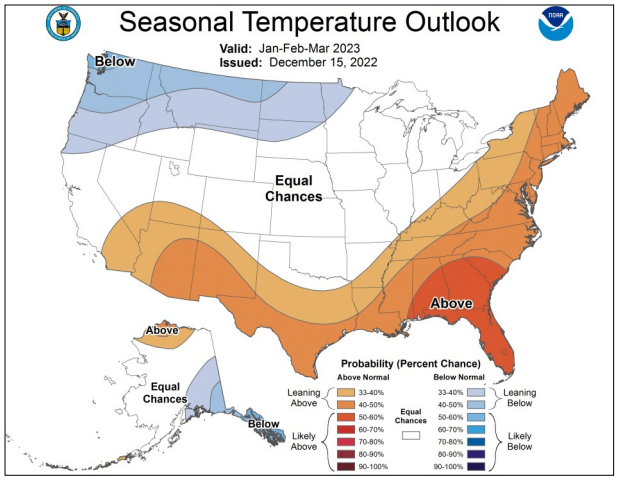
across the northern areas later in the winter. Precipitation leans wetter in the northern Plains and Great Lakes and leans drier into the Central Plains.

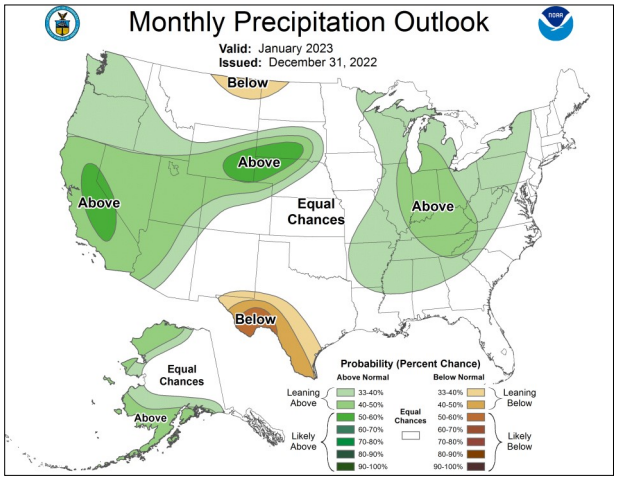
Some additional recovery from dryness may be possible across the eastern Corn Belt. More snow is possible in the northern Plains and possibly across all northern areas. The central Plains have a reduced chance for drought recovery if these outlooks materialize.

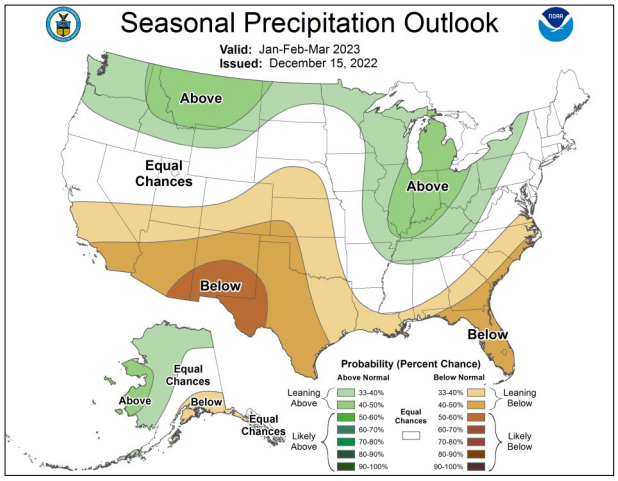
Spring planting is still in question but would seem more likely to be on-time or ahead in the driest areas. Wetter areas may still have on-time planting but will have to be monitored for additional spring precipitation.

Check the most recent outlooks here: https://www.cpc.ncep.noaa.gov/









Outlooks provided by the Climate Prediction Center.

Partners and Contributors

United States Department of Agriculture (USDA)
National Oceanic and Atmospheric Administration (NOAA)
Climate Prediction Center (CPC)
National Weather Service (NWS)
National Center for Environmental Information (NCEI)
National Drought Mitigation Center (NDMC)
National Integrated Drought Information System (NIDIS)
Midwestern Regional Climate Center (MRCC)
Midwest State Climatologists
High Plains Regional Climate Center (HPRCC)

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